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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,672	09/17/2003	Masanori Hashiba	OGW-0285	2466

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EXAMINER

THOMPSON, CAMIE S

ART UNIT	PAPER NUMBER
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1794

MAIL DATE	DELIVERY MODE
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11/14/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/663,672	Applicant(s) HASHIBA ET AL.	
	Examiner Camie S. Thompson	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on AfterFinal Amendment filed 10/29/07.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 13 and 14 is/are rejected.
- 7) ☒ Claim(s) 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Examiner regrets the untimely reopening of prosecution.
2. Applicant's amendment and accompanying remarks filed October 19, 2007 are acknowledged.
3. Examiner acknowledges amended claims 11 and 13-14.
4. Examiner acknowledges cancel claim 10.
5. The rejection of claims 10 and 14 under 35 U.S.C. 102(b) as being anticipated by Anderson et al., U.S. Patent Number 5,830,548 is overcome by applicant's amendment.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 11 and 13-14 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Anderson et al., U.S. Patent Number 5,830,548.

Anderson discloses an article of manufacture such as a fiberboard that comprises a fibrous such as hemp, ramie, jute or sisal (see reference claims 107, 127-128 and 146) material

homogeneously mixed with a binder material such as polylactic acid (see reference claim 118).

Column 10, lines 23-65 of the reference discloses that the fibers have a concentration in the range of 20% to 90% as per instant claim 14. Anderson's claims 137 and 139 disclose the tensile strength of the article ranging from 0.05 MPa to about 80 MPa and a density of greater than 1.5

g/cm³. The tensile strength of the Anderson reference reads on the tensile strength of 30 MPa or more for the present claims. Additionally, the density of the article of the Anderson reference reads on the density of 0.2 g.cm³ for the present article (fiberboard). The Anderson reference has the same components as the present claims. Subjecting the fiberboard to a high temperature and high humidity is a process limitation and is not given any patentable weight. Therefore, the article of the Anderson reference is the same as the fiberboard of the present claims. The carboxyl-terminal quantity of 10 or less equivalent weight/ton is an optimizable feature. Also, the amount of remaining monomer quantity of 500 ppm or less is an optimizable feature.

Discovery of optimum values of a result effective variable involves only routine skill in the art *in re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). The carboxyl terminal quantity affects the bending strength absent showing unexpected results. It is shown in Table 1 of applicant's specification that embodiment 4 has a carboxyl-terminal equivalent weight/ton of 45 and the comparative example has a carboxyl-terminal equivalent weight/ton of 45. Embodiments 2 and 3 have a carboxyl-terminal equivalent weight/ton of 5. There is no showing of unexpected results in the retention rate of the bending strength. The retention rate of the bending strength for embodiment 4 is 29 and the retention rate for the comparative example is 20. Also, embodiment 1 of applicant's invention has a carboxyl-terminal equivalent weight/ton of 45 with a retention rate of 23% and the comparative example has a carboxyl-terminal equivalent weight/ton of 45 with a retention rate of 20%. Applicant has not shown unexpected results.

8. Claims 12 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and

any intervening claims. The prior art does not provide for the recited fiberboard further comprising a polycarbodiimide compound added to the polylactic acid resin.

Response to Arguments

9. Applicant's arguments with respect to claims 11-14 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Camie S. Thompson whose telephone number is (571) 272-1530. The examiner can normally be reached on Monday through Friday from 7:30 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano, can be reached at (571) 272-1398. The fax phone number for the Group is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



MILTON I. CANO
SUPERVISORY PATENT EXAMINER